INTRODUCTION

The distinctive qualities of Malta first exerted their attraction on us over fifteen years ago. In 1954 an opportunity for closer study occurred and we developed the idea of undertaking some form of geographical survey. 114 121

When the authors made a preliminary survey of documentary source material, their first reaction was one of surprise at the relative paucity of literature available; although since that time there has been an improvement in the quality, extent and accessibility of studies relating to the Islands, this original impression persists. Smallness in overall area and in population numbers might be held responsible for such a limited degree of intellectual interest; and yet the true importance of Malta has been out of all proportion to mere size. The number of references quoted below might seem a rebuttal of these assertions. Indeed in total amount the material extant is superficially impressive. However, with certain significant exceptions, many studies prove to be unreliable either because of their uncritical acceptance of earlier dicta, or because analyses are relatively superficial in that they lack foundation upon direct observation and on the cross-checking given by comparative studies in related fields. These introductory remarks are intended not as complacent and destructive criticism but rather as a partial explanation and justification of the wide but not definitive range of our work. The research on which our book is based commenced as a sample study of land utilization. Because however of the difficulty of accepting other than very few statements as authoritative it became essential to undertake simultaneous inquiries in varied fields.

Equally important as a reason for attempting a relatively comprehensive coverage of affairs Maltese is the fact that in these strange, perhaps unique, islands the interweave of human and non-human elements is so close. Approach to a single isolated problem leads extraordinarily rapidly to all other parts of the complex, more quickly and completely than we have observed elsewhere. Whatever the starting point; micro-climate or semantics, hoe-types or constitutional history, any sustained investigation involves a mass of varied but inter-related problems. 114 121 182

The first simple project evolved for these reasons into a complex scheme carried out under the auspices of two Universities, two Governments, and in association with two Civil Services as well as other organizations, British, Maltese and international. We have therefore also experienced the need and received the opportunity of testing and experimenting with various techniques of geographical research. Circumstances allowed the participation of a relatively large number of workers of differing levels in experience. Besides full-time researchers at postgraduate level and a number of university teachers who made Malta a specific interest, there was scope for drawing upon the energy and enthusiasm of undergraduate members of the Department. In this way, the terrain could be fully covered and geography practised through the soles of the feet, with every part surveyed by personal observation on the ground. During the more or less parallel investigations therefore made necessary it has been possible to reconcile the methods of team research without restricting the freedom of the individuals concerned, whilst at the same time the Field Directors have been able to survey the whole of the work and take part in all of its constituent elements. It has been very reassuring to find that the checks provided by consequent overlapping have been consistently favourable. 114

As professional geographers, we welcome an opportunity of stating a belief that has lain in our minds throughout our work in Malta and elsewhere, and that experience has only served to confirm. This is that geography implies first, field observation of conditions relating to the way men live; secondly a willingness to trace a relationship through, and if necessary beyond the formal bounds normally assigned to a particular academic discipline. Thirdly, in order to give the whole process form and meaning, the operation must be rooted in a physical regional framework - this is what makes our approach 'geography' rather 121

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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The Royal University of Malta, through its Rector Magnificus, its Professor of Economics, and Registrar also gave much valued collaboration; and further academic assistance came from Brother Leo Barrington, until recently Principal of St. Michael's Training College for Men, Valletta. A final but none the less sincere expression of appreciation concerns the long-suffering farmers, who submitted with excellent grace to inquisition, disquisition, and even perquisition. To all these individuals we offer thanks, and the hope that their recollection of our presence will be as agreeable as are our memories of their Islands generally.

H. B-J., J. C. D., W. B. F.
Durham, June 1960.

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CONTRIBUTORS TO THE MALTA PROJECT

The present volume draws upon and summarizes the findings of research and observation carried out by a relatively large group of individuals. Much has been omitted or greatly abbreviated but it is proper that the names of all participants in the Malta project should be recorded.

There are first the collaborators in the volume, Professor K. C. Dunham, F. R. S., Dr. M. House and Mr. J. C. Wigglesworth of the Department of Geology, Durham Colleges in the University of Durham, who are responsible for Chapter 1(A); and Mr. D. Lang of the Soil Survey of Great Britain, who has contributed Chapter 3(A). As well, we acknowledge with deep appreciation the general co-operation of Dr. R. Cirillo, Professor of Economics, and Dr. J. Aquilina, Professor of Maltese Language, both of the Royal University, Valletta.

The others, whose names are given below, are past or present members of the Department of Geography, Durham Colleges.

Directors of Fieldwork and Land Use Survey; Research Supervisors.

H. Bowen-Jones, M. A. Cantab. Senior Lecturer.) Malta 1955, '56, '57, '58.
J. C. Dewdney, M. A. Edin. Lecturer.)

C. E. R. C. Research Fellows in Malta, 1956-'58.

P. K. Mitchell, B. A. Dunelm. (Lecturer at University College of Sierra Leone).
B. W. Beeley, B. A., Ph. D. Dunelm. (Research Fellow in Middle Eastern Studies, Durham Colleges).

Postgraduate Research Workers.

W. A. Charlton, B. A., Ph. D. Dunelm) Malta 1955, '56, '57.
M. Richardson, B. Sc., Ph. D. Dunelm)
R. W. Hill, B. A. Sheff., Ph. D. Dunelm Malta 1957

Land Use Survey Parties.

F. H. Andreason-Aalen, B. A. Dunelm	Malta 1955
J. A. Allen, B. A. Dunelm	Malta 1956
B. P. Birch, B. A. Dunelm	Malta 1957
K. S. MacLachlan, B. A. Dunelm	Malta 1956
P. K. Mitchell, B. A. Dunelm	Malta 1955
B. E. Roberts, B. A. Dunelm	Malta 1955, '56
A. R. Taylor, B. A. Dunelm	Malta 1957
S. A. Taylor, B. A. Dunelm	Malta 1955
I. B. Thompson, B. A. Dunelm, M. A. Indiana	Malta 1956
K. G. Wardhaugh, B. Sc. Dunelm	Malta 1956, '57
B. F. Wooten, B. A. Dunelm	Malta 1957
J. F. Yaxley, B. A. Dunelm	Malta 1956

General Director of the Research Project.

Professor W. B. Fisher, B. A. Manc., Doct. d'Univ. Paris. Malta 1948, '52, '53, '57, '58.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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Chapter 1

A. GEOLOGY AND STRUCTURE OF THE MALTESE ISLANDS

M. R. HOUSE, M.A., Ph.D., F.G.S., K. C. DUNHAM, D.Sc., F.R.S., and J. C. WIGGLESWORTH, B.Sc., F.G.S.

INTRODUCTION

The central Mediterranean islands of Malta, Gozo and Comino lie 58 miles due south of Sicily, 220 miles due north of Tripoli and about 180 miles east of Tunis. The Maltese archipelago trends north-west to south-east and is 28 miles in length. Malta, the largest and most southerly island, is 17 miles in length and nine miles wide and has an area of 95 square miles. Gozo is nine miles long, up to four miles wide, and has an area of 26 square miles. The island of Comino, in the Comino Strait separating the two islands, occupies only one square mile. A submarine ridge, averaging 50 fathoms in depth, extends southwards from the Ragusa peninsula of Sicily towards the islands, and it continues on as a broader and deeper shelf to the African coasts of Tunisia and Tripolitania. This submarine ridge, which separates the Mediterranean into two main hydrographic basins, represents a sunken land bridge which connected Africa and Europe during parts of the Pleistocene and later Tertiary.

The islands are entirely composed of Tertiary limestones with subsidiary clays and marls. Superficial deposits, mostly Pleistocene in age, take the form of cliff breccias, cave and valley loams, sands and gravels. The succession of Tertiary rocks on the islands is as follows:-

		Feet
5. Upper Coralline Limestone	at least	530
4. Greensand		0-50
3. Blue Clay		0-230
2. Globigerina Limestone		75-680
1. Lower Coralline Limestone	at least	626

The Lower Coralline Limestone and Lower Globigerina Limestone belong to the Aquitanian stage and the Middle and Upper Globigerina Limestone and Blue Clay to the Burdigalian. The Helvetian is represented by the Greensand and the Tortonian by the Upper Coralline Limestone. All these stages fall within the Miocene period, following Eames' recommendation that the Aquitanian is Miocene rather than Oligocene.

The strata have an undulating regional dip to the south-east and the islands are cut by a system of normal faults, striking ENE., which affects Malta especially and is responsible for cutting that island into a series of horst and rift blocks.

The first description of the geology of these islands was given by Commander T. A. Spratt (1843 and 1852) and later a general account was given by Murray (1890) and his work stimulated others, especially Cooke (1893, 1893a, 1896, 1896a), to examine the rocks in more detail. During this century Rizzo (1932), Paver (1943), Sir E. B. Bailey (1943) and Morris (1952) have added detail mainly in connection with an examination of the water resources of the islands. Recently the literature has been reviewed and summarised by Reed (1949) and Hyde (1955). The fossils have been studied especially by Gregory (1891), Stefanini (1908), Roman and Roger (1939) and Eames and Cox (1956). The interesting fauna of the Pleistocene cave deposits have been described by Cooke (1891, 1896b), Cooke and Smith Woodward (1893) and Bate (1935), and Evans (1954, 1959) has described the prehistoric pottery sequence.

Note: Throughout this chapter, four-figure grid references have been used to locate the south-western corner of the kilometre grid square containing the feature named. The grid in use is that appearing on the standard two-inch map of Malta and Gozo, O.S.G.S. 3889. Edition 4, 1954, and reproduced on Fig. 3 et seq. The Roman numerals refer to regions marked on the inset map of Fig. 3.

133 Valletta which gives way, in the extreme south-east, to southerly dips. The only important dislocation is the Malak Fault at Ghar Lapsi which strikes NW and downthrows south-west at least 800 feet.

The westerly structural low brings the top of the Lower Coralline Limestone less than 100 feet above sea level between Qiejgħa (4072) and Baħrija (4171). But the region is very much complicated by shallow folds and faults. There is a general structural rise to the south-east, however, and this culminates near ta'Żuta (4566) where the top of the Lower Coralline Limestone is over 300 feet above sea level.

The main north-south anticlinal belt through central Malta was first recognised by Sir Edward Bailey. It is not, however, a simple ridge but forms several upwarps. The main domes are around Naxxar (4974), near Żebbuġ (4970) and north-east of Ghar Lapsi (4865). The first and last of these domes brings the top of the Globigerina Limestone over 400 feet above sea level.

The broad Valletta basin which centres on the Grand Harbour must carry the top of the Lower Coralline Limestone a few hundred feet below sea level. To the north the structures rise to give the outcrops of Lower Coralline Limestone north of Sliema (5574) and to the west they rise towards the central anticlinal belt. To the south-west the rise culminates near Żurrieq (5265) and to the south, after rising to give the Lower Coralline Limestone inliers near Żabbar (5870) and Kospikwa (5771) the strata dip regularly to the south-east. Younger and younger strata are therefore regularly exposed in that direction and the highest beds, the Upper Globigerina Limestone, crop out on the peninsula of Delimara Point (6064).

The Malak Fault at Ghar Lapsi (4864) downthrows the Upper Coralline Limestone at least 800 feet to seaward. The fault strikes NW and forms a conjugate association with the more usual NE or ENE striking faults. The fault plane is well exposed, and dips steeply seaward. The fault between Ta Berwiek (4864) and Deub il-Bagdal (4964) is double, enclosing a thick sliver of Globigerina Limestone.

The Age of the Faulting

The faults of the islands form prominent scarp faces and in many cases the actual fault planes show up as walls marked with original slickensiding. This suggests that the faulting must be quite recent. Indeed, Pleistocene Mollusca have been recorded in a crushed conglomerate caught up in the Malak Fault. [172] The neolithic cart tracks which enter the sea at St. George's Bay, Birżebbuġa and other places show that there has been even more recent movement of the islands.

● 114 This account is based in part upon a field survey of Malta and Gozo carried out at the expense of British Petroleum Company Ltd., in March-April, 1955. The geologists engaged in the work, in addition to the authors, were Dr. M. H. P. Bott and Dr. A. A. Wilson, also of the Durham Colleges' Geology Department. The authors acknowledge their indebtedness to the Directors of the Company for permission to publish this summary. In addition visits were made in 1958 and 1960.

113 REFERENCES

BAILEY, E. B., 1943 Report on the Underground Water in Malta and Gozo. Water and Electricity Department, Malta.

BATE, D. M. A., 1935 Two New Mammals from the Pleistocene of Malta. Proc. Zool. Soc. London, 112, 247-264.

BLOW, W. H., 1957 Transatlantic correlation of Miocene sediments. Micropalaeontology. 3, 77-79.

COOKE, J. H., 1891 Notes on the 'Pleistocene Beds' of Gozo. Geol. Mag. 28, 348-355.

1893 On the Occurrence of Concretionary Masses of Limestones. Geol. Mag. 30, 157-160.

1893a Marls and Clays of the Maltese Islands. Quart. Journ. Geol. Soc. London. 49, 117-128.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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C. HYDROLOGY AND WATER SUPPLY

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An adequate water supply being essential to all forms of economic activity, industrial as well as agricultural, it is not surprising that a great deal of attention has been paid to this topic in Malta where, as in so many regions of Mediterranean climate, a limited and erratic rainfall makes water supply a perennial problem. This has become increasingly serious and difficult of solution during the period of British rule. Rapid growth of population and a rising standard of living have been accompanied by increasing water consumption per head as well as overall. A long series of reports of varying worth and conflicting conclusions has appeared during the last 50 years of which the Morris Report (1) published in 1952, is the most recent and most authoritative. This work is of interest not only for its thorough treatment of modern conditions but also for its critical appraisal of earlier published work. It forms the basis of current policy in the field of water supply development. [114]

Climate in general and precipitation in particular are more fully dealt with elsewhere (Chapter II, p.48). Suffice it to say at this point that the heavy, often very localised downpours accompanied by rapid run-off, in which the bulk of the rainfall occurs, together with summer drought and intensive evaporation, are factors which greatly reduce the value of a by no means abundant precipitation.

Malta is fortunate in its stratigraphy (see Chapter I A, p.25) which provides particularly favourable conditions for the percolation and underground storage of rainwater. The most valuable aquifers are the Upper and Lower Coralline Limestones where, however, the presence of bedding planes, joints and fissures is of far more importance in controlling the underground movement of water than are the porosity and permeability of the rocks themselves. The Globigerina, though it contains important limestones, is composed largely of thick and relatively impervious marly beds, through which percolation is slow and from which run-off is correspondingly rapid.

Two distinct water tables (2) exist, one in the Upper Coralline and the other in the Lower Coralline and Globigerina formations. There is a further subdivision into water tables based on sea level and those developed above impermeable strata. Physical conditions and the history of development of the two sources are so distinct as to warrant their separate treatment at this stage. The Main Sea Level Water Table (or the Lower Water Table) so named to distinguish it from smaller sea level tables occurring in the Upper Coralline, has for the past hundred years been the main source of the public supply in Malta and now accounts for some 90 per cent, or more the water extracted by the Water Department. This water table 'is in bodily continuity with water of Mediterranean salinity marginally and at depth... It is not retained within the island by any impermeable base, but owes its existence to the simple fact that every winter the local rainfall adds more fresh water to the underground store than can be dissipated by (i) the direct discharge of its superficial portion around the coast in response to the head of water inland and (ii) the deterioration of its composition... as the result of diffusion from the highly saline Mediterranean water around it and beneath it' (3).

The area occupied by this water table is bounded by (a) the coast where the Lower Coralline outcrops and (b) the line along which the junction of the Lower Coralline with the Globigerina lies at sea level (Fig. 8). The area thus defined occupies 37.5 square miles south of the Victoria Lines and 4.3 to the north, the most valuable parts being those where the salinity of the top water does not exceed 15 parts per 100,000. Such conditions are limited to an area of 22.8 square miles. The water body is replenished for the most part through the extremely limited outcrops of Lower Coralline since the Globigerina, especially where it is soil covered, forms a region of very slow percolation. Thus it is of particular importance that the Lower Coralline catchments should be preserved and protected from pollution. Such areas are rarely cultivated but it is unfortunate, though not unnatural, that they are often used for other purposes, in many

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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*132 September) and only another 1.83 inches fell in the remaining seven months of the climatic year. This prolonged drought, during which rain fell on only 22 days (approximately one in ten) and during which the heaviest fall was 0.28 inches on 22nd May, is by far the most remarkable feature of this year and, indeed, of the whole four-year period. As mentioned elsewhere, the exceptionally dry late winter and spring was a particularly serious matter for the agriculturist. There was little of note concerning the run of temperatures during this dry period and these are clearly illustrated by the graph. However, the generally rather low relative humidity of the summer months with a minimum of 28 per cent. on 14th August is worthy of note.

In 1956-57, a fairly 'normal' autumn and winter, though with a few periods of particularly heavy rain, were followed by a strikingly 'abnormal' spring and summer, the low rainfall of these seasons bringing the annual total well below the mean, and almost to the lower limit of the inter-quartile range.

CLIMATIC YEAR 1957-58: As the diagram shows, the first part of this year was abnormally wet with a particularly large number of days of heavy rain. 18.5 inches fell in the four months September-December inclusive and considerably higher totals were recorded at stations other than Valletta (see below). The period from January to August, however, was one in which monthly rainfall totals were near or rather below average, so that the annual total was not as high as might have been expected. Nevertheless, at 25.48 inches, the latter was 25 per cent. above the mean and lay outside the inter-quartile range. The heavy rainfall of autumn 1957 was as noteworthy as the drought which preceded it and had an adverse effect on farming operations by delaying the planting of many of the winter crops. The only feature of note concerning the temperatures of this year was their 'normal' character, no monthly mean diverging from the average by more than 2°F.

The four years studied in detail thus give a fairly full picture of the range of conditions likely to be experienced in Malta over a much longer period and contain examples of practically all recorded extremes of temperature, rainfall and humidity conditions.

RAINFALL IN THE MALTESE ISLANDS

Under the climatic conditions prevailing in the Islands, rainfall is undoubtedly the most important of the climatic elements and its distribution in space and time are of vital importance to the people of Malta in general and to the agricultural community in particular. Detailed studies, first of the provenance and quality of recorded data, and secondly of periodic rainfall totals have been made by P. K. Mitchell and have appeared in reports submitted to the Colonial Office (2). Here it is necessary to restrict examination to certain aspects of particular value and interest.

Publication of daily rainfall totals, based on measurements in a 'pluviometer' in Valletta, began in 1841. There are now 40 meteorological stations in the Islands. Here we summarise in list form the main developments of the last century and consider qualitatively the information derived from observations made at the stations shown on Fig. 9.

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CHRONOLOGICAL LIST OF OBSERVATIONS, MANUSCRIPTS and PUBLISHED DATA (Fig. 10)

A. 1841-42, at Military Hospital, Valletta, and from 1843-55 on the University Roof, also in Valletta. The mss. are lost, but monthly data were published by Delicata, 1856 (3). Used later by Chadwick (4), and in Blue Books 1880 and 1881 (5).

B. 1841-46, at an unknown site in Valletta. The mss. are lost but incomplete publication of daily records appeared in *Portafoglio Maltese*, 1841-47.

C. 1843-47, yet another gauge in Valletta, probably in Strait Street. Mss. lost. Incomplete and inaccurate publication of monthly data in *Societa Medica* (6), n.d.

[Text continues on p. 58]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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*132 D. 1844-49, on a site in the Via San Guiseppe, Hamrun. Mss. are lost. Incomplete publication of monthly data in Delicata, 1846, and also by the *Societa Economico-Agraria*, 1849 and 1850 (7).

114 E. 1851-54, probably at the Corradino Prison, Pawla. The mss. are lost but annual totals appear in Zammit, 1855 (8).

F.1. 1852-61, probably at St. John's Cavalier, Valletta, by the Royal Engineers. Recording may not have been continuous during the period, as mss. in the Meteorological Office cover only the following years: 1852-54 and 1857-61. Hann, 1903 (9), published monthly readings for 1853-54 and 1857-60. Bateman, 1867 (printed by Seddal, 1870) (10) gave annual totals for 1852 and 1855, probably from this source. Both years are defective in the mss.

F.2. 1865-86 and 1901-06, by the Statistical Branch of the Army Medical Department, at the Garrison Hospital, Valletta (formerly the Hospital of the Knights of St. John). Mss.' at the Meteorological Office begin with January 1866, but 1865 data were published by that Office in 1890. Bateman, 1867, gives the annual total for 1866.

H. 1888-1941 and 1947 to date, at various elementary schools in Malta and Gozo. Mss. giving monthly figures before 1891 and daily data after 1901 are preserved at the Royal University. Between those years the mss. are lost. Occasional publication of monthly data has taken place in contemporary issues of the Government Gazette (11). Those for the years when mss. are missing (1891-96, but not unfortunately 1897-1901) are particularly valuable. A mimeographed summary of the available ms. record giving means for Malta and Gozo up to 1913 was prepared at the University Observatory in 1950 (12). Agius, 1915 (13), gives a table of annual means 1901-11, for some of these stations. From 1916 to date, with a gap for the war years, monthly totals have been issued on duplicated and printed sheets by the University Observatory.

J. 1877-78, and 1900 to date, at the University Observatory where mss. are preserved. Later years, after 1909, issued in Royal University Meteorological Abstracts; daily data superseded monthly summaries in 1920. From 1904 to 1913, University observations formed the basis for the Malta section of 'Summary of the Weather in Egypt, etc.' (14).

K. From 1883-1909, unpublished observations were taken at the Seminary, Victoria, Gozo. The mss. are lost.

L. 1883-1906, at St. Ignatius College, St. Julian's. Again the mss. are lost but data was published in the Stonyhurst College Meteorological Reports up to 1902 (15). There was also occasional publication in Government Gazette of the period, Hann, 1903 (16), used monthly summaries of these data for the years 1885-1901.

M. 1884 to date, at one and later seven sites on the Rabat-Dingli Plateau. Observations were made by the Water Department who hold the mss. for the years after 1888. Earlier observations of this series were published by Chadwick, O., 1885 (17), 1887 (18) and 1888 (19). Monthly figures, the means of all seven stations, are published by Morris, 1952 (20), for the years 1890 to 1944.

N. 1908-10 to date. Summer rainfall readings ensured at five of the School Observation sites (H). Another station, of similar status, was set up at the Argotti Gardens, Floriana. The mss. of these observations are kept at the Royal University. Returns, in varying detail, have been issued with the other Royal University Meteorological Observatory Abstracts (J) (21).

O. 1922-28. A station set up for the Meteorological Office on Guardamangia Hill, Pieta. Ms. records available at the Meteorological Office, Luqa.

P. 1925 to date. Daily ms. records of data from five gauges in Gozo are preserved at the Water Department.

Q. 1928-48. Meteorological Office station at St. John's Cavalier, Valletta. The Office hold ms. records.

R. 1946 to date. Meteorological Office station at Luqa Airport. Mss. at the station with duplicates at the Meteorological Office. Currently published in the Overseas Supplement to the Daily Weather Report.

[Text continues on p. 60]

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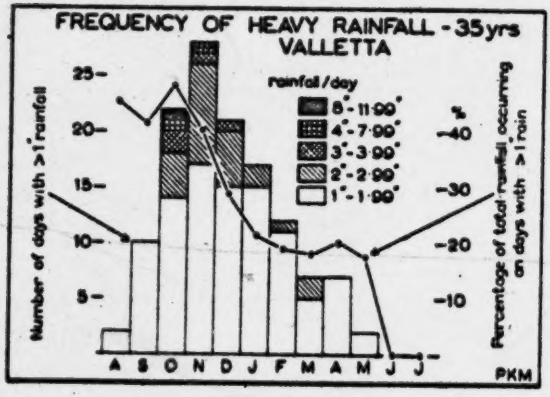

Fig. 11 Frequency of Heavy Rainfall - 35 yrs., Valletta.

*132 S. 1948 to date. Royal Naval Air Station, Hal Far, Ms. records kept at station, for two years, then sent to Director of Naval Weather Service.

114 T. 1956 to 1958. R.A.F. Station, ta'Kali, observations for most days maintained by Meteorological Office, Mss. at Meteorological Office, Luqa.

U. 1956 to date. At nine stations in Malta, autographic recording instruments have been established by the Water Department, who hold the mss.

V. 1957 to date. Autographic records for five Gozo stations. Water Department.

ANALYSES OF MALTESE RAINFALL

*132 DAILY RAINFALL

The number of 'rain-days' within a particular period gives at best a very general idea of the distribution of rainfall within that period, since the amount of rain which falls in one rain-day is an extremely variable quantity. At the same time, figures for daily rainfall inevitably, on many occasions, either divide a period of continuous rain into separate parts or add together separate falls occurring within the same 24-hour period.

These deficiencies in the basic data must be borne in mind in the following examination of daily rainfall which is based on the Valletta rainfall record for the 35 years beginning with August 1901. Table 8 and Fig. 11 show the frequency, within that period, of days with 1.0 inches or more of rain, the occurrences of various totals being distinguished. Thus, for example, in the 35 Decembers from 1901 to 1935 inclusive there were 21 days with more than 1 inch of rain, of which six had more than 2 inches and one had more than 3 inches. The table and figure also indicate the proportion of the total rainfall of each month which occurred on days with 1 inch or more of rain. This is seen to be at its highest in the autumn months, falling off rapidly through the winter with a minor peak in spring. No rain-days with totals in excess of 1 inch were recorded in June or July during the period under review.

Thus heavy rain is most frequent in the earlier part of the rainfall year, though its frequency in August has been exaggerated by the occurrence of two particularly heavy downpours in that month in 1905 and 1929. The peak in October accords with the high variability already remarked upon for that month and is reflected in the wide divergence between mean and median amounts (see Fig. 7).

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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likely to result from rapid run-off, are highly desirable for cultivation in most years because of their deeper soils and longer-lasting water tables. [132* 311]

Statistical analysis suggests that storms of the type described must be accepted as recurrent and normal and provision made to counter their effects. Damage to crops and lands might be considered as part of the normal cost of better yields in other years, though this raises questions of profit and loss accounting which have not so far been faced. Similarly, the conflicting interests of agriculture and water supply, referred to elsewhere in this book, must somehow be reconciled. Such problems must be considered against the fullest possible background of factual data.

REGIONAL DISTRIBUTION OF RAINFALL

Two conclusions may be drawn from the foregoing analysis of storm rainfall, namely that there are marked regional variations in the distribution of rainfall from any one storm and that certain areas are more subject to storms than others. This would suggest that total precipitation might show a distinct regional pattern an idea borne out by analysis of records from a number of stations. Figure 19 is based on the Schools rain gauge records (Series H) and, although these cover a period of only 15 years, they accord well with the results of Agius's calculations based on records for a number of stations from 1901 to 1910.

Most of the Islands' rainfall is brought by north-westerly winds, the convectional effect being strengthened by orographic uplift along the steep north-western coasts of Malta and Gozo. The distributional pattern of Fig. 19 is a product of these factors. Maxima in Gozo of over 24 inches are recorded where the northern plateaux lie directly in the path of prevailing winds. In Comino and the extreme north of Malta there are indications of a slight rain-shadow effect. The upland areas south of Ghajn Tuffieha, together with the Naxxar-Gharghur Hills, give the highest rainfall amounts in Malta. In the lee of these hill masses distinct rain-shadow areas occur, with annual totals below 20 inches.

Valletta, lying in the drier, eastern part of Malta, had a mean annual rainfall of 21.94 inches for the period 1924-39. This is 1.4 inches or 7 per cent. greater than the average obtained from the 116-year record; thus the isohyetal values of Fig. 19 should be reduced by that amount to give a truer picture of long-term means.

DEWFALL

Dew is the only other form of precipitation to occur in the Maltese Islands but this has not been measured by modern methods. Zammit's figures (25) (Table 14) would appear to be much too high, presumably because his method involved the use of a metal collecting pan (26). [114]

Table 14. Zammit's measurements of Dewfall. Inches.

1854		1854		1854		1855	
April	0.75	July	0.81	October	0.79	January	0.24
May	0.62	August	0.30	November	0.34	February	0.56
June	1.12	September	0.78	December	0.16	March	0.08

Seasonal variations indicated by these figures are, however, reasonably reliable and it is interesting to note that 66 per cent. of Zammit's measured dewfall occurs in the period April-September inclusive, a seasonal rhythm similar to that observed by Duvdevani (27) on the Israeli littoral. The influence of dewfall on the growth of summer plants is obviously considerable and warrants investigation by more up-to-date methods.

Despite the considerable differences in the two totals for the full year 1957-58 which may largely be explained by differences in the exposure of the two instruments, the broad trend of potential evapo-transpiration is clearly evident (Fig. 20). The maximum occurs in August when the rate approaches a quarter-inch per day and falls off rapidly to a minimum of about 0.05 inch in December, thence rising slowly, and somewhat irregularly, to the August peak. Certain of the monthly figures appear inaccurate. May and June 1957 would seem to be too high and too low respectively. Settling of the soil may be responsible for the irregularity of these early values but can hardly explain a similar pattern in 1958. Difficulties experienced in maintaining a vegetation cover may be a further factor in distorting the values for these months. The high November reading at Hal Far is almost certainly due to the 'bushy' vegetation at the time.

Thornethwaite (36), Penman (37) and Crowe (38) have produced formulae for the calculation of P.E. from standard meteorological data. The application of these formulae to mean monthly data for Malta is shown in Table 18. Comparison with the ta'Qali and Hal Far figures is encouraging (Fig. 21). A further comparison is made in Fig. 22 between mean values computed according to Penman's formula for evaporation from an open water surface and the results of observations at the ta'Qali free surface evaporation tank, kindly made available by the Senior Water Engineer. Again, the two curves are tolerably close.

Table 18. Computed mean monthly evapo-transpiration, inches.

	A	S	O	N	D	J	F	M	A	M	J	J	Yr.
Thornethwaite, P. E.	6.2	4.7	3.4	1.9	1.3	1.0	1.0	1.4	2.1	3.2	4.7	6.4	37.3
Crowe, P. E.	7.1	4.8	2.6	1.7	1.4	1.5	1.4	2.4	3.3	4.4	5.4	7.0	43.0
Penman, Fo.*	8.0	5.9	4.5	2.3	1.0	1.0	1.3	3.1	3.5	5.2	7.6	8.1	51.5

*Evaporation from open water.

It seems probable that Zammit's figures, appropriately adjusted, would provide reasonably correct results. The University data, however, are excessive owing to deficiencies in the apparatus (the pan was only 2 inches deep and back radiation from its base would have heated the water and speeded up its evaporation). The low August values of these early readings may well be related to this insolation effec., since their rhythm is more closely linked with insolation than with air temperature. It is the latter which normally controls deep water evaporation and potential evaporation, though, as Penman points out (39), atmospheric humidity, wind and insolation are also significant.

Clearly, further work is necessary before any final conclusions can be drawn. Observations made so far must be regarded as preliminary, though the results are sufficiently consistent to justify the following statements on the 'water balance' of the Maltese Islands.

THE WATER BALANCE OF THE MALTESE CLIMATE

The water balance is essentially the relationship between water requirements as expressed by potential evapo-transpiration (P.E.) rates and the availability of water from precipitation. Table 19 gives mean monthly values of P.E., computed according to the methods suggested by Thornethwaite and Crowe (40).

Table 19. Crude water balance - Malta. Inches.

	A	S	O	N	D	J	F	M	A	M	J	J	Yr.
Precipitation	0.2	1.1	3.1	3.6	3.8	3.5	2.2	1.6	0.9	0.4	0.1	0	20.5
Potential evapo-transpiration	6.7	4.8	3.0	1.8	1.4	1.3	1.2	1.9	2.7	3.8	5.1	6.7	40.1
Moisture surplus			0.1	1.8	2.4	2.2	1.0						7.5
Moisture deficiency	6.5	3.7						0.3	1.8	3.4	5.0	6.7	19.6

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134 water occasionally is a further aid. This is difficult or impossible, however, without drains and irrigation, so that soils with a saline ground water, are probably irremediable, but they may not in any case be worsening very rapidly.

REFERENCES

113 GONZALEX GARCIA and TRISTAN MATOS (1956) - Reports 6th Int. Congr. Soil Sci. 1956, Vol. B II-28, pp. 609-617.
KUBIENA (1953) - 'The Soils of Europe', Murby, London, 1953.
KUYKENDALL et al. (1957) - Soil Science 84, 1957, pp. 77-88.

ACKNOWLEDGMENTS

122 The author is indebted to the Colonial Office, under whose auspices the field work was carried out, for permission to publish this account.

•114 His sincere thanks are due to Dr. H. Greene and Dr. D. A. Osmond for criticism and guidance, to the staff of the Analysis Section of the Macaulay Institute under Dr. H. G. M. 128 Hardie who performed the analyses, and to Mrs. D. Sutton for help in the preparation of the typescript.

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1: Bowen-Jones et al. K-5 (1955-1958) 1961
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Chapter IV

MALTA BEFORE A.D. 1800

A. Malta before the Knights

The Maltese Islands were probably first settled towards the end of the third millenium B.C.; certainly there is no evidence of any earlier occupation. From this time onwards, the landscape has had stamped upon it the successive imprints of a series of cultures and culture-contacts. This is not the place to attempt a detailed analytical history, but any study of a region and its people must consider time as well as place. In Malta we have, in the course of our fieldwork, continually felt an extraordinarily strong sense of continuity, an insistence that much which is contemporary can only be understood in terms of the past, and often of the remote past. Conversely, a close examination of the landscape can help to illuminate the past in a strictly historical sense.

The sort of question which arises in an investigation of the rural landscape may be exemplified by the much-debated problem of 'cart-ruts'. On some of the expanses of bare rock which exist in various parts of the island of Malta are deeply incised grooves, in dual and parallel alignment, sometimes in isolation, often in complex 'tramway' patterns (Plate VII). Various attempts have been made to explain them (1) but with little success. We are certain only of their approximate age. To the prehistorian they are of obvious direct interest. To ourselves they are irritatingly fascinating because of the indirect and obscure evidence which they seem to offer of the nature of the processes which have operated on the land of Malta. Were they friction-incised through a soil cover by skid-carts? If this is so, then the soil cover must not only have been more extensive than at present but must also have evolved under different climatic and edaphic conditions from those with which we are now familiar. What can we deduce from the present limited exposure of the ruts and from the fact that often they appear to have been blotted out by cultivation? The traditional answer, as put forward by Zammit (2), is that they carried sledges for the collection and transport of soil so that man could concentrate the soil in field plots. Thus field-making inevitably covered the ruts except on the ridges and bluffs. There are defects in these and other explanations, none of which come near to helping us to estimate the number and kind of people involved.

The settlements, too, present problems. Thus the archaeologist: 'The curious and complete absence of settlement-sites throughout the prehistoric period, which also holds good for the Punic and later periods, seems susceptible of only one explanation. The best sites must have been chosen for settlement very early in the islands' occupation and these have remained centres of habitation until the present day' (3). May we then assume that, with the exception of the 'lost villages' of more recent times, the settlement pattern of today results from continual addition to, and an absence of erasures from the palimpsest? The answer is not only of chronological interest but has an essential place in any analysis of present-day Malta.

For such reasons as these we have attempted in this section to give a time perspective to the Maltese picture in order to help our present understanding.

The first Maltese would seem to have been Neolithic farmers using impressed ceramic ware of a type associated with the *Stentinello* culture of eastern Sicily. The stylistically earliest wares of Ghar Dalam (I) (Fig. 29) are associated with megalithic temples already well enough developed to have lost their original tomb character and to have become cult centres. These and later temples, built during the eight centuries before *c.* 1500 B.C. (Period I), are impressive and surviving contributions to the landscape by the first Neolithic people. Megalithic rock-tombs have been found at Xemxija and probably from this type of structure there evolved five distinct and successive phases of temple architecture. The earliest are those of Mgarr (II) and Xewkija (III) with a simple

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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catchment area of the port was extended to include most of the east and centre of the island.

The decline in indigenously rooted economic activity is typified by the fortunes of the cotton industry, which after two millennia of regional fame finally succumbed to the stresses of the new world into which Malta had been introduced. Statistical information is limited to brief mention of employment in the industry in the Census Reports of 1851 and later. General material, often untrustworthy, may be gleaned from travellers reports. Field work (18) carried out during the last four years has given us the evidence of the few surviving cotton workers who can recall the character of the industry as it was in its moribund latter days.

In 1861 there still remained almost 9,000 workers occupationally described as spinners and weavers and some 200 beaters and dyers. Ninety-six per cent. of the total were women, and male labour was generally used only in the final stages of cloth preparation. The industry included all processes from the growing of indigenous short staple annual cottons to the manufacture of cloth. The actual operations however were carried out almost entirely by individual workers in their own homes and were linked only by merchants specialising in this trade. In many cases merchants advanced seed to the farmers on a crop-sharing basis. In all cases they bought the picked lint and then distributed quantities by weight to 'out-work' spinners. These would return the yarn, which had been prepared by primitive traditional teasers and spinning wheels, and were paid by weight and fineness of the yarn. The village merchant would store the yarn until he received an order for cloth and would then make similar contracts with domestic weavers.

That this type of 'out-work', domestic industry survived late into the nineteenth century is a commentary on the social and economic needs of the poorer village and rural classes. Much of the female labour described as occupied in cotton-working was often only seasonally thus employed. The 1861 census taken in the autumn in contrast to the usual spring period clearly illustrates the seasonal change of work between spring harvesting and tillage in the fields, and the home use of the spinning wheel after the autumnal harvest. Tariffs and quotas on trade in lint and yarn were deliberately employed to protect in the domestic market this last employment reserve of the 'lower classes'.

Finally however tradition and protection proved powerless to prevent change. In the harbour area the decline was rapid after 1851, alternative employment and the impact of trade virtually killing the indigenous cotton industry by 1901. Away from the conurbation the same factors operated more slowly but still inexorably. Żebbuġ and Rabat, centres of old Malta, were the last to succumb. The former, a great centre of mercantile and ecclesiastical wealth derived from cotton, remained relatively important for weaving until 1914. In Rabat, the suburb of the old capital, a craft industry still survives. With the coming of new opportunities for wealth gaining, not in trade but in mass employment in the dockyards and towns, the last *raison d'être* of the cotton industry disappeared. It survived longest in the cotton growing regions of the west and in the most Maltese of the old villages of the Centre and South. With its disappearance died the last considerable skilled employment of traditional resource wealth.

Changes such as these characterised the Maltese economy during the nineteenth century. World War I marked the end of an epoch during which the evaluation placed on Malta by Britain was sometimes questioned but never invalidated. The Maltese economy as it existed in the opening years of the twentieth century had reached the logical culmination of a specialised development which had been under way for centuries.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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Chapter VI

MODERN MALTA

A. Population and Migration

It is common knowledge that the Maltese Islands now possess a population which is extremely large relative to the territorial area. Polemical discussion of the implications of the situation has generally been based on two assumptions. The first is that the present size of the population is wholly a consequence of a simple vital revolution which occurred during British rule in the nineteenth century. The second assumption is that this vital-revolution is almost over and that falling birthrates will stabilise the population at a new and higher level. These assumptions are erroneous. The brief study that follows (based on a full-scale investigation of many types of source material by M. Richardson and others), attempts to show the true characteristics of Maltese demography.

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THE POPULATION BEFORE 1842

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Table 24. Estimates of population A.D. 991 to 1842.

	I. MALTESE		II. NON-MALTESE		III. TOTAL
	Malta	Gozo	The Knights	Other	
(1) 991					21,000
(2) 1240	3,800	1,800			5,600
(3) 1400					10,000
(4) 1528	12,000	5,000			17,000
(5) 1530	15,000	5,000	5,000		25,000
(6) 1565	19,500	2,500	9,000		31,000
	17,500	2,500	3,000		23,000
(7) 1582	20,000				
(8) 1590	28,864		3,436		32,290
(9) 1632	45,450	3,000	4,450		52,900
(10) 1741					110,000
(11) 1760	66,800				
(12) 1798	90,000	24,000			114,000
(13) 1807	80,225	12,829		22,100	115,154
(14) 1813	96,403	14,400			110,803
(15) 1823					112,304
(16) 1826	96,818	15,618		1,709	115,945
(17) 1837	98,958	16,522		4,398	119,878
(18) 1842	97,535	14,230		1,999	113,864

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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The earliest recorded estimate of the population of the Maltese Islands is one of 21,000, made by the Emir Yusuf al Futah in A.D. 991 (1), but this would appear to be excessive in the light of Abate Gilliberto's report (2) of approximately 1,000 families in 1240 and Bosio's suggestion (3) that total numbers in A.D. 1400 did not exceed 10,000. The Commissioners to the Knights (4) estimated a total population of about 17,000 in 1528 to whom were added, shortly afterwards, members of the Order and their followers, some 5,000 in all. That the population of the Islands in 1530 was in the region of 20,000 may be assumed from data given by a number of writers including Fra Joannus Quintinus, Bosio and Boisgelin (5).

The first half of the sixteenth century appears to have been a period of steady population increase in Malta, but Gozo suffered a severe setback in the Turkish raid of 1551 when large numbers were taken away as slaves. At the time of the Great Siege of 1565, members of the Order numbered 9,000 and the civilian population was in the region of 22,000 (6), a total of 31,000 of whom perhaps 3,000 lived in Gozo. Fatal casualties sustained by the Maltese during the Siege numbered 8,000 according to Zabarella, and Bosio puts the civilian population after the Siege at 20,000. A similar total was reported for the civilian population of Malta alone, excluding the Knights and their followers, by Grand Inquisitor Visconti in 1582 (7). In 1590 an enumeration was made for the Viceroy of Sicily (8). A detailed enumeration was made for Grand Master de Pawla in 1632 and is recorded by Abela (9). The members of the Order numbered 4,450 while the 'native' populations of Malta and Gozo were said to be 45,450 and 3,000 respectively, a grand total of 52,900.

Information is fragmentary for the period 1632-1807, although an estimate of 110,000 was made in 1741 (10) conflicting with Ciantar's figure (11) of 66,800 for Malta only, excluding members of the Order, in the year 1760. The former total is obviously much exaggerated. Boisgelin's total (12) of 114,000 in 1798 is equally unreliable as is shown by its estimate of 24,000 for Gozo, when that Island is known to have had only 14,000 inhabitants in 1842 (18) and there is no evidence of large-scale migration from Gozo in the intervening period.

The first detailed enumeration after the withdrawal of the French was recorded in an almanac of 1807 (13) and was based on Parish registers. This shows a 'native Catholic' population of 93,000 and a total of 22,100 'other inhabitants and domesticated strangers'. The 'census' of 1828 (16) gives a total which differs by a few hundreds only from that of 1807, and although the outbreak of plague in 1813 would in part account for the lack of population growth during the period, there can be little doubt that the 1828 enumeration had considerable deficiencies. That of 1837 (17) had similar defects. Over-estimation seems to have been a common feature of counts made in the early nineteenth century, since the first official census (18) of 1842, recorded a total population of only 113,884.

There is not sufficient material for any valid conclusions to be reached concerning the rate of population growth in the Maltese Islands before 1530, but the various estimates made between 1530 and 1842 permit an assessment of trends over the three centuries preceding the first official census. In Fig. 34 these estimates have been plotted on a semi-logarithmic scale and the trend of early nineteenth century population growth back-projected to 1530. Assuming a steady rate of increase, all the sixteenth century estimates, together with those of the nineteenth century are close to the totals arrived at by interpolation, but, in the intervening period, the figures given by Abela and Boisgelin appear grossly inaccurate. Abela's estimate for 1632 seems likely to have been at least 15,000 too great, his postulated increase of 100 per cent. or more over the figure for 1582 being an obvious impossibility. Boisgelin's total of 114,000 in 1798, includes a definite over-estimate of at least 10,000 in the case of Gozo and a probable exaggeration of 10,000 for Malta. Interpolation suggests a figure of 90,000 for the native population of the Islands in that year.

It is noteworthy that, between 1530 and 1798, the period during which the Knights of St. John were in control of the Maltese Islands, the population of Malta and Gozo together increased by some 360 per cent. from 25,000 to 90,000 while

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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Chapter VII

A. The Land Use Survey of the Maltese Islands

When, in 1954, the decision was made to undertake a programme of geographical research into Maltese agricultural resources and their utilisation, it was also decided to base such a programme on fundamental observational work. The availability of excellent maps on scales of 25 inches, 6 inches and 2 inches to the mile, made it possible to envisage a complete and detailed survey of land use, field by field, plot by plot. Financial exigencies and the need for concentrating work into a short critical period, made it necessary so to plan the first visit as to make the findings representative of the whole range of conditions observable. The work was later extended to cover the full area of the Islands. 311* 121

From the outset, it was realised that work along the lines adopted elsewhere under the World Land Utilisation Survey scheme, while valuable as a first step in regions of considerable extent, would be inadequate under Maltese conditions. Several of the categories suggested by the scheme for use in the Old World (e.g. 6: Unimproved Grazing Land and 7: Woodland) do not exist in Malta while others (e.g. 3: Tree and other Perennial Crops and 4: Crop Land) are too broad to give any indication of regional land use characteristics. The small size of the Maltese Islands has made it possible, despite the minute sub-division of the land to carry out a field-by-field survey of use while at the same time distinguishing all the main crops. It is the combinations of these many different crops which most obviously mark out the different agricultural regions and which make necessary a breakdown of the broader land use categories. It has been appreciated that in many territories suitable conditions do not exist for this 'microscopic' approach, but the authors venture to wonder whether the dangers of more general surveys may not outweigh the value of their findings. These dangers lie not intrinsically in the scale of work but rather in that the findings, if used at all, will generally be used by people who may not appreciate their shortcomings. The problem lies in the gulf between the researcher and those responsible for policies and action.

The survey has been essentially a team effort, directed by the senior authors, the field work being carried out by them with the assistance of the student members of the survey parties (see Introduction, p. 9). It was found that a great deal of useful work could be carried out by the latter, provided that more experienced workers were available to organise and take part in the actual field work and to correlate and interpret the results. The basic method was the plotting of crops actually growing in the fields at the time of the survey (see below) on 6-inch or 25-inch maps. The latter scale was used in parts of Malta where fields are too small to allow the use of the 6-inch scale and throughout Gozo where 6-inch maps are not available. However, the work was not confined to mere crop-plotting, but included the noting of a variety of elements: the quality of the crops, conditions of soil, drainage and water supply, the relationship of crops to rock type, slope, exposure and other physical factors, farming techniques, irrigation methods and the character and extent of rural settlement. A large number of perspective sketches, plots of individual fields, and case studies of farms, a fraction of which are reproduced in the present volume, were made and many photographs taken. Wherever possible, farmers were interviewed and, although this was most easily done when interpreters were available, sufficient farmers with some English were found to extend the scope of this part of the work to cover some 250 individuals. Each day's work was followed by a conference at which points noted by the field workers were discussed and recorded. By these means, sufficient material of all kinds was gathered to permit not only the compilation of an accurate and very detailed record of land use but also a reasoned interpretation of observed fact which could be viewed alongside published official reports and statistical material. The authors so arranged their share of the work that they were able to visit all regions of the

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[TEXT CONTINUES ON P. 193]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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Islands and could thus provide continuity in the interpretation of the records of the many field workers.

The survey parties worked in the Islands during the months of March and April in each of the three years 1955, 1956, and 1957. In March-April and August-September 1958 the authors themselves carried out final checks. During the Spring periods, the use of fairly large teams of observers, between six and eight in number, enabled the work to be concentrated at a critical time when the widest range of crops and of activities are to be seen. Summer vegetables and cotton are the only major crops not then in the fields and this difficulty was overcome by the enlistment of the other Durham research workers permanently residing in the Islands and by a summer visit of one of the authors. Objection might be raised to the spreading of the survey work over more than one season. The difficulty of completing such work on such a scale during one short period of time is not a sufficient answer. The real answer is that the time spread did not matter. The miniscule field pattern and the further subdivision into separate plots, both amply illustrated in the examples shown here, mean that crop changes from year to year merely result in the re-shuffling of tiny pieces of an intricate mosaic. The variety of crops grown and identified (see below), the relative uniformity of crop sequences and the individuality possessed by the various regions, further remove any deficiencies apparently implied by this particular method. The spreading of the fieldwork over a number of years did in fact allow both the checking of methodological validity and the carrying out of subsidiary pieces of work. For example, sample areas were surveyed during each of the four years, thus giving an accurate picture of crop sequence and rotations, as well as a check on short term change.

The following crops were individually identified in the field: sulla, wheat, barley, vines, fruit, olives, potatoes, onions, tomatoes, marrows, other vegetables, broad beans, peas and vetches. In addition, uncropped land was recorded as waste, fallow, rough grazing or tilled. In several cases, e.g. vegetables, fruit and vetches, a note was made of the actual variety of plant being grown, e.g. cauliflowers, artichokes, apples, peaches, lemons, *gilbiena*, *zolfa*, *widna*, etc. Coloured maps on a 6-inch scale, showing the 18 different crops and uses of land have been prepared. Cost of publication prevents their reproduction here, but they have been used in the preparation of this volume, particularly in Chapters VII B and VIII. The Land Use Maps (Figs. 69 to 98) show the distribution of individual crops, though the range distinguished has been somewhat curtailed. Wheat and barley, tomatoes and marrows, the various vegetables, broad beans and peas, and vetches and minor fodders have respectively been combined into single maps although the accompanying text notes regional variations. These 14 distribution maps in black and white have been prepared by reduction from the coloured 6-inch series. They were originally prepared on a 2-inch scale, and were thus directly comparable with the standard 2-inch topographical sheets and with the 2-inch geology and soil maps. The distribution maps, together with the coloured 6-inch are at present stored in the Durham Geography Department and it is hoped that the former at least will eventually be published on a 2-inch scale. The amount of cartographic work involved has been at least as great as that done in the field, and, since it was carried out by the authors alone it has consumed a considerable amount of time. However, it is felt that the labour has been justified in that only by accurate cartographic representation and by deduction from the maps can easy generalities be avoided. The long term character of the project also made easier the establishment of friendly contacts with local individuals, both official and private, whose help is sincerely acknowledged, and at the same time allowed the authors to amass a background knowledge of the Maltese Islands which has been invaluable in their interpretation of the agricultural landscape.

Note. A preliminary report - 'Agriculture in Malta, a survey of land use', was produced by H. Bowen-Jones and J. C. Dewdney, at Durham, in 1958.

2: Boissevain E-5 (1960-1961) 1965
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which divide the villages. I have therefore presented the current political and religious issues in Malta as concisely as possible, and have made no attempt to evaluate or to pass judgement on the policies of State, Church or political party. Consequently, any attempt to put the facts contained herein to polemical use is likely to distort them.

Though I lived in Malta during 1957 and 1958, this study is based on the research I carried out there from July 1960 to September 1961 under a grant from the Colonial Social Science Research Council, to whom I am most grateful. The terms of reference on which the research was based, and the form this final report has assumed, were dictated solely by my personal interests; my work was neither carried out on behalf of, nor a report to, a government.

My wife and daughters were with me during the entire period of fieldwork, and their encouragement and interest as well as the many friends they made were a great asset. We spent our first five months in Farrug and the last eight months in Kortin. These are not the real names of the villages, for the inhabitants of neither seek recognition. Indeed, throughout this study I have been at pains to avoid any indiscretion which would repay most shamefully our special debt of gratitude to friends and neighbours for their hospitality and good humour in the face of our ignorance of their customs. For the same reason, the names of many of the persons and saints who figure in this account have been altered.

I chose to work in Farrug because it is one of the villages divided by competing band clubs, and among other things I was particularly interested in the part this unusual rivalry plays in village politics. With a population of approximately 1,400, it is one of the smaller Maltese villages. We later moved to Kortin, a village of almost 5,000, since its size and the fact that it is not divided by band club rivalry provided an interesting contrast to Farrug. Available housing determined the choice of these particular two villages from among the many that would have met my requirements. Besides detailed research in these villages, I carried out comparative studies into the general organization, leadership and patterns of conflict of 12 other communities. In this work Mr. Edward Micallef was my very able research assistant for three months. I chose 11 of these villages by stratifying all villages in Malta and Gozo according to population and then drawing out a

2: Boissevain E-5 (1960-1961) 1965
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I did the fieldwork on which this study is based at this period in Malta's constitutional history. A new constitution was promulgated late in 1961, and elections took place in February 1962. In place of dyarchy, it provided for 'concurrent powers' on foreign affairs and defence to be held by the Malta Government and a United Kingdom Commissioner.

The first Maltese political parties were born out of the controversy over language which followed the publication in 1880 of the Keenan report on education. This recommended that English should be taught in place of Italian in the primary schools, although students might later take Italian as an elective subject. In the Lyceum and the University, except for the Faculty of Theology, all work was to be done in English. These recommendations, which the government tried for many years to implement, weakened the dominant position which Italian had enjoyed in the educational system. As Italian was the language of the law courts, the clergy and the University, it was something of a class symbol. Most of the educated classes, and especially the lawyers and priests, strenuously resisted the move to downgrade it in favour of English. Many of the refugees from the Italian wars, who came to Malta after 1850, gave encouragement to the partisans of Italian. The Italian movement also whipped up considerable support amongst the clergy and their parishioners by declaring that English would certainly bring with it increased Protestant influences.

The dispute thus created interest groups which were to dominate Maltese politics for the next fifty years. On one side was the pro-English, or *riformista*, party led first by Sigismondo Savona, later the Director of Education, and subsequently by Count (later Lord) Gerald Strickland. This party, which generally supported government policy, favoured close cultural and political ties with Britain. By the 1920's, it became known as the Constitutional Party. Its successor, the Progressive Constitutional Party, is led by Strickland's daughter, Miss Mabel Strickland.

The *anti-riformista* or pro-Italian party was led by Dr. Fortunato Mizzi and later by his son, Dr. Enrico Mizzi. The Nationalist Party eventually emerged out of this group, and today, although the language issue is quite dead, it is still one of the two major political parties. Both parties campaigned for support in the villages and thus, for the first time, forcefully presented national political issues to the masses.

2: Boissevain E-5 (1960-1961) 1965
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level. There are also many village clerks and teachers who speak English to their children to help prepare them for school, for a sound command of English is a prerequisite to social advancement.

It is quite true that education has been given greater emphasis in the urban areas than in the villages; but the introduction of compulsory education between the ages of six and fourteen is rapidly closing this gap. The spread of education is reflected in the decline of illiteracy. In 1948, just two years after the introduction of compulsory education, 16 per cent of the population of Valletta and Sliema over fourteen years of age, and 47 per cent of the same age group in Gozo, were illiterate. By 1957, these figures had fallen to 9 per cent and 22 per cent respectively. During the same period, the national illiteracy rate declined from 37 per cent to 17 per cent.[1]

A number of other forces operate to reduce the social distance between town and country. The greater employment opportunities during and after the war, and the continuous improvement in public transport that allowed the villagers to take advantage of them, have placed an ever-increasing number of villagers alongside townsmen at desks and work benches. The war itself was a major force in the same direction, for British troops and people from the urban areas were evacuated to the country to escape the bombing attacks, and so shared the life of their rural neighbours. All learned a good deal from one another. It is not surprising, therefore, that many Maltese, especially in the villages, regard the last war as a social milestone, a dividing line between past dependence upon agriculture and present wage labour, between poverty and relative prosperity.

II

The inhabitants of the villages in Malta no longer derive their livelihood from agriculture, though this was the rule a century ago. Today most are semi-skilled and unskilled industrial labourers who work outside their villages for the Malta Government, the

[1] *Eleventh Census of the Maltese Islands, 1948* (Valletta, Progress Press), pp. 297 ff.; and *1957 Census of the Maltese Islands: Report on Population and Housing* (Valletta, Central Office of Statistics, 1958), pp. 41 ff. The two sets of figures are not quite comparable. Those for 1948 represent the total number of illiterates, while the 1957 figures show only the number of people who never attended school.

2: Boissevain E-5 (1960-1961) 1965
EZ6 Malta EZ6

besides the patron saint, parishes celebrate many other saints. The feasts of these secondary saints are normally not as lavish as the annual festa of the patron. But many villages celebrate two large festas: one for the titular saint of the parish, and the other for a secondary saint who has assumed almost equal social importance. Where this occurs, a village is divided into two partiti, each of which has its own band club and celebrates one of the saints. The partiti compete over almost every aspect of the festa, including the decoration of the streets, the adornment of the statue, the number of guest bands and, above all, the fireworks. Even the exact number of communicants, the size of candles and the quantity of light bulbs illuminating the façade of the church often become the subject of dispute. Farrug is divided by this type of rivalry. One partit is dedicated to St. Martin, the titular of the parish, the other to St. Roque.

The origins of these festa partiti, where they can be traced, are very much alike. Most of them came into existence sometime between 1850 and the turn of the century, and most arose out of disputes between persons concerned with the celebration of the titular festa and those interested in the cult of some lesser saint. The latter were usually members of the confraternity dedicated to that saint.[1] These factions in time became centred on separate social clubs, and eventually acquired brass bands. The clubs provided a permanent institutional basis for the rivalry. As time went on, the partiti became more violent in their disputes and in the pressure they put upon individuals to support them. Finally in 1935, the Church, long alarmed at the extremes to which the devotion to some saints had been carried in certain villages, took steps to eliminate the competition. It promulgated a series of regulations designed to reduce the scale on which secondary feasts could be celebrated. These stipulated that for secondary feasts there was to be no Translation of Holy Relics on the eve of the feast, that only the church and the area immediately adjacent to it could

[1] Cf. Rob. Mifsud Bonnici, *Grajja Tal-Mużika F'Malta u Għawdex* (Malta, Giov. Muscat, 1954), pp. 38 f. He suggests that these partiti developed out of a dispute between persons who wanted to play sacred music by the Maltese composer Vincenzo Bugeja (1806–60) and those who preferred that of his rival, Paolo Nani (1814–1904). As far as I could determine, however, the only partiti which arose directly out of this dispute are those in Żebbuġ. On the other hand, many rival partiti, once established, played the music of either Bugeja or Nani during their feasts. The former took a star as their symbol, the latter an eagle. Today partiti in many villages are still nicknamed either *tal-istilla* or *tal-ajkla* after this once-important division.

2: Boissevain E-5 (1960-1961) 1965
EZ6 Malta EZ6

578 disappeared when the old Constitutional Party died out in the long
659 period of Governor's rule and the war that followed. At present,
665 however, the MLP shows no signs of weakening. On the contrary,
795 it is as tightly united and strong today as it has ever been. Thus this conflict will in all probability continue to divide Malta and Gozo in the foreseeable future, though its intensity may fluctuate.

114 It is well to remember that this study was carried out at a time
578 when the hostility between these two camps was at its peak. Some
659 of the examples that have been given, therefore, are extreme cases
665 which would have been quite inconceivable even ten years ago.
795 It is also possible that ten years hence they will appear equally strange. But this does not detract from the relevance of the analysis, for if the examples given are ephemeral, the principles which they illustrate are permanent.

III

578 In many respects the rebellion of a political party against the
659 authority of the Bishop is similar to that of a festa partit against its
665 parish priest. There is an important difference, however; the festa
795 partit can appeal an unfavourable decision of its parish priest to the Archbishop. If the latter rules against the partit, it can bring pressure to bear that may result in the transfer of the parish priest.

626 A political party, on the other hand, cannot appeal the unfavourable decisions of the Bishop to any local authority, for in his diocese his word is law. Though in theory such disputes can be referred to the Holy See, in practice, as in the case of Strickland's conflict with the Church, they fester for so long that by the time Rome is brought in reconciliation is difficult, if not impossible. If in practice a political party cannot appeal to a higher authority, it can even less agitate for the replacement of the Bishop. Thus disputes remain unresolved and the supporters of the political party become progressively more anti-clerical. Finally, their anti-clericalism is equated with anti-Catholicism, and their rebellion against authority with revolt against the social order.

But is it in fact a revolution? It is important to draw a clear distinction between rebellion and revolution.[1] In the case of the former, people may turn against a leader personally, and may

[1] Cf. Max Gluckman, *Custom and Conflict in Africa* (Oxford, Basil Blackwell, 1959), p. 28.

3: Buxton D-5 (1920-1921) 1922 EZ6 Malta EZ6

THE ETHNOLOGY OF MALTA AND GOZO.

By L. H. Dudley Buxton.

(*Department of Human Anatomy, Oxford.*)

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[The figures in brackets in the text refer to Appendix I. Literature.]

I.—Introduction.

This report refers to a part of the material collected in December, 1920, and January, 1921, by an anthropological expedition from Oxford. The expedition was made possible by the generosity of Sir Alfred Mond and a grant from the Mary Ewart Trust. Most of the measurements on crania, on the women, and on about a hundred men and women at Gozo, were done by Mrs. Jenkinson and Miss Moss working together. Miss Russell measured long bones and about half the children.[1] The remaining measurements were done by the present writer. As far as possible all the skeletal material was examined by the present writer, who is ultimately responsible for the sexing. Mr. Hort was occupied in working at the archæological problems. I am indebted to Mrs. Jenkinson and Miss Moss for working out a number of indices on the living, and to Miss Russell for help in tabulation.

We all wish to express our thanks to the Governor of Malta (Field-Marshal Lord Plumer), who gave us official support, took a great personal interest in our work, and smoothed away many of the difficulties; and to the Lieutenant-Governor, Mr. Robertson. Dr. Zammit, the Rector of Malta University and Curator of the Museum, set his unrivalled knowledge of the island at our disposal, and gave us every possible help. Our thanks are also due to various members of the Department of Public Health, who sacrificed busy days in order to take us into villages where they happened to be known; to Count Caruana Gatto, for instructing me in the botany of Malta; and to numerous other friends who did everything in their power to enable us to collect data in Malta.

[1] It is hoped to utilise the material dealing with the long bones and with the children in subsequent papers.

3: Buxton D-5 (1920-1921) 1922 EZ6 Malta EZ6

The fortified towns and suburbs, apart from Rabato, form a practically continuous inhabited area. The population, especially in the suburbs, is extremely overcrowded. The country villages are irregularly built along a series of winding lanes, which converge on an open space not infrequently situated in front of the village church. In a corner of such a *piazza* there is usually a café, and it is here that the majority of measurements of the country people were taken, very often as the men came out of Mass on Sunday. Some of the villages have orange gardens, wherever there is sufficient water to spare for irrigation purposes.

Although with modern means of transport it is possible to visit practically the whole island in one day, many of the villages are nearly endogamous, in spite of the absence of geographical boundaries. The men of one village will certainly not seek their wives from a neighbouring village. If they marry outside their own hamlet, it will probably be with a girl from the suburban area. Similarly, many of the town dwellers find wives among the daughters of the country folk. No such distinctions appear to hold in the urban districts. Communications within this latter area are good and cheap, and extensive use of them appears to be made by the whole population.

III.—History.

The ethnological history of the archipelago is not as yet very clear, and further evidence is badly needed. A very interesting cave, usually known as Ghar Dalam, has been excavated by Mr. Despott, to whom I am indebted for permission to examine his finds and his MS. notes. The valley (the Weid Dalam) in which this cave is situated, shows signs of three terraces. The earliest terrace is high above the present level of the stream, which runs on the level of the old second terrace, and the third terrace, on a still lower level, is in most places filled up by *débris*, brought down by the present stream or its immediate predecessor. The second terrace appears to belong to two different periods, as there are in places marks on the rock of undercutting by the swirling of a stream at two very different levels. The river which cut out these terraces must, at least in flood time, have contained a considerable volume of water. The modern stream is, however, even at the wettest time, hardly more than a series of disconnected pools. The Ghar Dalam cave belongs to the earlier part of the second terrace. It contained numerous sherds, mostly Bronze Age. By far the greater part of the cave, however, was filled up with a very large number of bones, the majority of which belonged to a species of pygmy hippopotamus. These bones, and even the teeth, show considerable evidence of attrition by water.

In this fossil bed Mr. Despott claims to have discovered the remains of Neandertal man. All the human remains that have been found consist of very small fragments, and apart from one tooth, there is no evidence to show that these bones really belong to Neandertal man. The tooth is a molar exhibiting unusual characters, but in the absence of X-ray photographs or a section, and comparison with

3: Buxton D-5 (1920-1921) 1922 EZ6 Malta EZ6

authenticated material, it is hardly possible to state definitely that Neandertal man was living in Malta at the time when the rivers were large and the pygmy hippopotamus abundant. It is further remarkable that in a deposit which appears to be admirably suited for the preservation of bones, only small fragments of man have been found. In such a dry climate as that of Malta, cracks may have occurred in the floor of a cave, down which tiny fragments of bones may easily have fallen. There are some gravel terraces in the neighbourhood of Zebbug, which should certainly be explored for traces of Palæolithic man in the island.

The peculiar form of the Maltese sanctuaries has been discussed with great wealth of detail by Professor Zammit, with special reference to the site at Hal Tarxien. He is inclined to believe that they belong to the Neolithic period. There is certainly an entire absence of metal in the "Neolithic" stratum, and the stone masonry has not been worked with metal tools. The development of pottery, however, suggests a Late Neolithic or even an Eneolithic stage, not improbably of comparatively late date. There is considerable evidence to suggest that the buildings were extremely holy places, and there are numerous parallel examples from other parts of the Mediterranean which indicate that under certain conditions metal, or at a later date iron, was tabu in particular sanctuaries. We know nothing at present about the domestic culture of these megalith builders, and it is unsafe to argue from their sanctuaries that they were unacquainted with the use of bronze. The period may be provisionally termed "Malta Local Neolithic."

Although the majority of the material found at Hal Saflieni[1] is Neolithic, a number of undoubtedly Bronze Age wares of coarse types, and fragments of large vessels similar to the cremation urns of the Hal Tarxien Bronze Age period were found there. In spite of the very large number of bones which I examined, however, I did not find any definite traces of cremation; and with such evidence as I possess at present, I think it is justifiable to conclude that we are dealing with material anterior to the Bronze Age at Hal Tarxien, i.e. belonging to the Malta Local Neolithic period. Some bodies were undoubtedly buried *in situ*, but the majority appear to have been brought there, possibly from various parts of the island; probably they were exhumed and stored in the Hypogæum. The fractures on many of the bones and the comparative absence of complete long bones, suggests exhumation, a practice still widely distributed in the Mediterranean.

The very close resemblance between the incised "Neolithic" ware from Hal Tarxien and that from Santa Verna in Gozo, suggests that at this time there must

[1] The Hypogæum at Hal Saflieni consists of a series of artificial caves hollowed out underground. In addition to numerous small objects, statuettes and sherds, these caves contained a very large number of human bones. The carvings, which are dolmenic in form, and the spirals in red ochre on the roof, have inclined Professor Zammit to believe that this is a sanctuary. Whatever its true purpose, the Hypogæum certainly forms an extensive ossuary of "Malta Local Neolithic" material.

PREFACE

(1) TERMS OF REFERENCE

114 121 On October 1st, 1956, the writer became Junior Research Fellow in the Department of Geography in the Durham Division of the University of Durham, an appointment sponsored by the Research Department of the Colonial Office. The terms of the appointment, which was to be tenable for two years, entailed research into the social factors behind the problems of rural Malta and Gozo - especially as these concern the large agricultural element in this population (Project C.D.W. (R) No. 764).

The report here submitted presents the writer's assessment of the position.

114 [101] The sixteen months between January, 1957, and May, 1958, were spent in the Maltese Islands, the remainder of the period being spent in the Department in Durham on the analysis and preparation of material amassed in the field.

(2) ACKNOWLEDGEMENTS

122 The writer wishes to record his gratitude for the help and encouragement received within both official and private circles in Malta and Gozo. During the period of work in the Islands, in 1957-58, the Maltese Government provided extensive help both to him and to a colleague, Mr. Peter K. Mitchell. This took the form of:

(a) the use of official transport for research purposes on two or three days each week throughout the period in the Islands,

(b) the provision of an interpreter for a large part of the time during which transport was also available,

(c) permission to use the facilities of certain Government Departments and other premises - on the customary Civil Service oath,

000 (d) a grant to cover certain travel expenses.

The Governor of Malta, His Excellency Sir Robert Laycock, K.C.M.G., C.B., D.S.O., and the Lieutenant-Governor, His Honour Mr. Trafford Smith, C.M.G., both showed gracious interest in the work in Malta.

General acknowledgement of other assistance given to the writer in Malta must, for reasons of space, be confined here to a few of a very long list of individuals. A very special mention must, however, be made in one case, for the writer wishes to place on record his debt to Mr. and Mrs. P.K. Mitchell for the help and friendship extended to him throughout the stay in Malta.

Profound thanks are due also to the farmers whose patience and generosity made field work among them possible and profitable. As their help and information was given in confidence individual identities have had to be obscured.

128 lot of the farmer.

In Section 5 an attempt is made to draw together the main socio-economic aspects of the present problem of Maltese agriculture. It is recognized that other aspects of this total problem have been covered elsewhere (e.g. - Mitchell, B/524, 525; Cirillo, B/387; Bowen-Jones and Dowdney, B/336; and in the various official reports which have appeared in recent years, B/Part 7 E). It is felt, however, that in most cases, insufficient emphasis has been put on what is in fact the essence of the problem - namely the retreat of the present younger generation from farming and from rural society for a variety of reasons which are, it emerges, certainly as much sociological as economic.

[114]

(iii) Section 6 presents a considerable part of the evidence upon which the assessments in Section 2 to 5 have been based. It contains, as it were, the minutes of evidence for the conclusions reached. Part 1 (Cases I to XIII) presents detailed studies on thirteen farm-units representative of the different branches of the industry. Part 2 (Cases XIV to XXII) illuminates the main features of the current over-emphasis on large tractors and other types of farm machinery, while Part 3 comprises a brief note on the fishing community in the Islands, included because the fortunes of this comparatively small group parallel those of the farmers of the Islands.

[127]

In addition to the material set out in Section 6 the writer has made use of a great deal of case study and general material collected during the period of field research in Malta and Gozo. Most of this is now in B/5.

(iv) Section 7 comprises a note on literature and language in Malta and a bibliographical list of published and unpublished material on the Islands. This covers not only the field of research of the present report but attempts to include also details of a cross section of material available on the historical, economic, archaeological, geological, hydrological and other fields of study of Malta and Gozo. Being the first example of an attempt at such a comprehensive coverage it is given with apologies for its deficiencies. Works listed in the bibliography are referred to in the general text of the report by their number in the bibliography preceded by 'B/'.

(v) Section 8 includes five Statistical Appendices. The first of these presents a picture of Maltese agriculture, its nature and weaknesses, together with relevant details of the farming population. Appendix 5 assembles a wider range of information on weights and measures than previously available. The other three Appendices are included as illustrative of points made in Section 1, as are Maps 1 to 7 and The Graph.

361 Mellieha (1841), Mgarr (1898) and St. Paul's Bay (1905).
175 In Gozo seven new parishes appeared in just over a century:
103 Ghajnsielem[19] (1855), Qala (1872), Kerbem (1885), San Lawrenz (1893), Fontana (part of Victoria, 1911), Ghasri (1921), and Munxar (1957; v. Sannat, Map 1).

17 In the period reviewed the major development has been
361 the emergence of Valletta and the Three Cities under the
369 Order and the tremendous urban extension in the nineteenth and twentieth centuries. The town-villages of medieval Malta, looking inwards to Rabat, grew quietly but were eclipsed by the youthful Valletta and remained agriculturally and socially isolated. In recent generations the economic 'draw' of the towns and the harbour area penetrated the Fringe zone and then the Rural districts, bringing all the countryside in some measure within the economic sphere of the towns. This has been accompanied by the education and emancipation of the rural community which tends to blur the line of demarcation between townsman and villager. Thus an adequate definition of 'Rural Malta' becomes increasingly elusive.

SECTION 2:- The Farmer and Farming

128

DEFINITIONS

In much the same way in which the terms 'rural community' and village' need examination before they can be used in socio-economic analysis, so too, in Malta, do the meanings of 'farmer', 'farm-holding', etc., even as used in official reports, need elucidation.

128 The definitions of such terms made by Mitchell (B/525)
241 have been accepted by the present writer. The 'farmer' is
423 the "owner or holder of the land which he cultivates either
[114] individually or as the principal person of an agricultural enterprise". "The land worked by the farmer and his group of helpers constitutes the 'farm holding' or 'farm'. 'Holding' here implies simply the land held by the farmer, and is not used in a synonomous sense with the legalistic 'tenement'. There are excellent reasons for maintaining a clear distinction between the two terms for, on the one hand, a holding may consist of many different tenements held by the farmer of as many landowners and, on the other, a legal tenement may be occupied by more than one farmer.
311 Confusion may also arise, in this connection, from the fact
423 that a holding may contain freehold as well as various types of leasehold land". Mitchell continues "Most farms include land of more than one category, and especially in the north

[P.141]

Socially and economically this man is not a farmer. For two generations the machine importing and other business dealing of the family have given them something of a middle-class status in the village. Their standard of living and the house they occupy reflect their above-average prosperity while their literacy and foreign contacts have further enhanced their social standing.

PART 3. A Note on the Fishermen of Malta and Gozo.

The fishermen of the Maltese Islands deserve mention in this report as their position today has many points in common with that of the farmers.

A 1957 estimate put their number at 840 (B/177 - 1957, Section F, p.1). This represented about 1% of the total gainfully occupied population at the time and is equivalent to only 11% of the number of full-time farmers in the Islands, although only about half of the 840 appear to be full-time fishermen. "Many are engaged in the industry for part of the year only and they usually have an laternative occupation ashore" (B/250, p.13).

Burdon, in his 1956 report, sums up the present condition of the fishermen : "The most remarkable feature of the industry is the diversity of methods which individual fishermen use. Some fishermen are more advanced than others, but in general they are progressive and their knowledge of the local fisheries is extensive. Unfortunately they have little contact with the world beyond Malta and do not learn of new developments in fishing technique. This is aggravated by the comparatively low standard of education" (B/250, pp.13-14).

The parallel with farming and farmers in Malta is clear. Burdon observes that recent developments "make it imperative that vocational training should be given to the fishermen. This must be simple in form and should be taken to the fishermen - i.e. the classes must be held in the fishing centres at times when the fishermen are available. But such measures are unlikely to meet with success if confined to the fishermen whose livelihood depends upon fishing whenever the weather permits. Special attention must, therefore, be paid to the children of the fishermen who will become the fishermen of tomorrow" (B/250, p.14).

The present writer holds that the need for education in agriculture is exactly parallel to Burdon's recommendation. But, whereas a start on these lines has already been made in farming (Section 4), nothing has been done in the case of fishing, although the need for the technical education of the fishermen has been stressed since as long ago as 1931 (B/237, p.47). There are still no qualified Maltese skippers (B/250, p.14) and, for work in the more distant grounds off Lampedusa and Sicily, Italians are employed. They are regarded with some awe by local fishermen for their literacy, technical knowledge and the rather higher wages which they can command.

[P.483]

APPENDIX 5 : WEIGHTS and MEASURES

804

UNIT	EQUIVALENTS		
	Maltese	British	Metric
LENGTH			
Pulzier (pollice)	-	0.859 ins	21.83 mm
Xiber (palmo)	12 Pulzier	10.312 ins	26.19 cm
Qasba (canna)	8 Xbar°	2.292 yds	2.095 m
AREA			
Qasba Kwadra	-	2.252 sq.yds	1.891 sq.m
Kejla	-	22.410 sq.yds	18.735 sq.m
Siegh (scudello)	10 Kejliet°	224.100 sq.yds	187.354 sq.m
Tomna (tumolo)	8 Sieghan°	0.278 acre	0.112 ha.
Hodd (salma)	16 L'Tomna	4.444 acres	1.798 ha.
		(1 acre - 3.8 tmien°)	
VOLUME			
Xiber Kubu	-	0.83 cu.ft	
Qasba Kubu	-	12.04 cu.yds	
WEIGHT			
Uqija	-	0.933 oz	0.026 kg
Ratal (rotolo)	30 Uqija	1.750 lbs	0.793 kg
Wiina	5 Rtal°	8.750 lbs	3.968 kg
Qantar	20 Wiina	175.000 lbs	79.378 kg
		(1 ton - 12.8 qantar° - 1016.128 kg)	
BUNDLE MEASURE			
Qatta, Xibka, Xkora (sheaf or bundle of sulla, wheat, etc.)			
Hemel (somma)	10 Qattiet° (8 Qattiet in Gozo)		
CAPACITY: DRY GOODS			
Tomna (tumolo)	-	0.0625 qrs	0.1818 hectolitre
Tejba	4 Tmien°	2.0 bushels	0.7272 "
Hodd (salma)	16 L'Tomna	8.0 "	2.909 "
CAPACITY: OIL & MILK			
Terz	-	0.281 quart	0.32 litres
Nofs	2 Terzi°	0.562 "	0.63 "
Kartoċċ	2 Nfas°	1.125 "	1.27 "
Kwarta	4 Kratoċ°	1.125 gallons	5.11 "
CAPACITY: BEER, WINES & SPIRITS			
Pinta	-	0.25 pint	0.142 litres
Terz	2 Pinet°	0.50 "	0.284 "
Nofs	2 Terzi°	1.00 "	0.581 "
Kartoċċ	2 Nfas°	2.00 "	1.138 "
Kwarta	4.75 Kratoċ°	1.187 gallons	5.398 "
Carra	2 Karti°	2.375 "	10.797 "
Barmil (Barrel)	4 Carar°	9.500 "	43.187 "

436 **MONEY**

Sterling is the official currency in Malta and Gozo but various old units are also retained in popular usage:

'Lira'.....	£1	'Sitta(6) rbghajja'.....	10d
'Nofs Lira'.....	10s	'Sixpence'.....	6d
'Tmintax(18) rbighi'.....	2s 6d	'Tlieta(3) rbghajja'.....	5d
'Skud'.....	1s 8d	'Sold'.....	4d
'Xelin'.....	1s	'Sitt(6) habbiet'.....	½d

(A 'habba' - grain - was one twelfth of a penny; twenty 'habbiet' equalled one 'tari' or 'rbighi'.)

193 804 NOTES: (1) Plural forms, identified by an asterisk° in the table: Carar (s.Carra); Habbiet (s.Habba); Kratoċ (s.Kartoċċ); Kejliet (s.Kejla); Kwarti (s.Kwarta); Nfas (s.Nofs); Pinet (s.Pinta); Qantar (s.Qantar); Qattiet (s.Qatta); Rbghajja (s. Rbighi); Rtal (s.Ratal); Sieghan (s.Siegh); Skudi (s.Skud); Terzi (s.Terz); Tmien (s.Tomna); Xbar (s.Xiber); Wiiniet (s.Wiina).

127 114 (2) The information in the table is based in part on that given in R/98 - 1958-9, p.410, and in part on personal investigation.

NOTES

[600] [105] 1. Many settlements in the Islands possess Italian and English names often quite distinct from the local Maltese names. Map 1 gives localities with their names as currently accepted in 'English' usage.

2. v. Appendix 1 A; Map 3; and Graph.

[113] [129] 3. The demographic aspects of Malta's development are considered by Richardson (B/561), while economic factors since 1800 are analyzed by Charlton (b/381). The writer draws from both.

4. Except in the north of Malta where settlements of village status are a product of the past hundred years only.

5. Messrs. Rigg Wolts, Ltd.

6. Some impression of the expansion of the Dockyard during the nineteenth century may be gained from Appendix 2 B.

[129] 7. A count, from employment files, was made in March 1957, by the writer and Mr. W.A. Charlton; permission being kindly given by the authorities of (at that time) H.M. Dockyard, Malta.

[114] 8. G.W.S. Robinson (B/564) distinguishes Gozo as possessing a pattern of isolated homesteads (1948), although Appendix 3 does not substantiate this.

9. Reference to G.S.G.S. 2" and 6" to the mile maps is recommended throughout : v. Section 7, Preamble.

10. Including members of the religious Orders, which have been important in Malta for five centuries.

11. v. B/91 and Appendix 4 for details of the extent of the Lay Apostolate in Malta and Gozo.

12. From conversations during field work.

13. "Jiena Malti minn in-Nadur" ('I am a Maltese from Nadur in Gozo').

14. v. B/291 and B/280 for background information.

15. In conversation with Mgr. Salamone.

[342] 16. Windows at ground-floor level were in traditional construction for reasons both of defence and privacy, and therefore provide a helpful dating feature.

[525] 17. Lotto - the popular Government lottery.

[529] 18. 'L-Imnarja' (the word is a corruption of 'Luminaria'), held each June at Buskett, includes a day and night of song and speeches and an agricultural show (v. B/266).

19. Now including the Island of Comino.

[113] 20. As there is in some societies; v. PIDDINGTON, R: "An Introduction to Social Anthropology", London, 1950, pp. 169-270.

21. v. Vegetable cropping chart for the Maltese Islands, published by the Dept. of Agriculture, Malta.

[124] 22. In three cases, the farmer himself or a member of the family wrote the daily account, the originals of which are in B/5. The analyses here given were based on translations of the originals by the writer.

23. For discussion of co-operation in marketing v. Section 4.

24. The wide variety of small rotary cultivators, etc., is excluded.

25. List supplied by the Malta Police.

26. Made (1957) by the writer and Mr. W.A. Charlton.

27. Co-operative for American Remittances to Everywhere, Inc.

28. i.e. the villages.

29. C.A.R.E.[27] Publicity Department Statement, 1957.

30. "Report to the Government of Libya on Indigenous and Italian Farm Enterprises in the Zavia Area". FAO Report No.259, Rome 1954, p.80.

31. Personal communication from Mr. R.W. Hill, Dept. of Geography, Durham Colleges.

32. C.A.R.E.[27] scale of income (as in the Second Distribution, 1957-58, revised):

Family of 3 or 4 persons	....	maximum income	=	£5
" 5 to 7	"	....	"	"	= £5 8s
" 8 " 10	"	....	"	"	= £5 15s
" 11 " 13	"	....	"	"	= £6 1s
" 14 " 16	"	....	"	"	= £6 6s
" 17 or 18	"	....	"	"	= £6 10s .

33. In addition to the 'General Poor and Needy' category here considered C.A.R.E.[27] supplies went (March, 1958) automatically to 15,181 Old Age Pensioners and to 8,321 individuals on Social Service Assistance.

34. Permission for the writer to make this analysis and much other valuable help was given by Mr. J. Boissevain, Chief of C.A.R.E. Mission in Malta at that time (7 Feb. 1958).

35. (B/168, pp.38-40).

36. i.e. Full-time farmers (B/164 - 1957, pp.20-21), excluding 679 farmers who rendered no census return.

37. Since April, 1958, the Islands have been without a locally elected Government (December, 1959).

38. "Labour Government's Progress Report, 1956-57", Malta, Central Office of Information, 1957, v.p.37.

39. J. MacClement in lecture "Aims and Objects of the Dairy Training Course (1957) and the Functions of an Advisory Service", Malta, Dept. of Agriculture, 1957, unpub.

40. "Ghalf Bilanbjat ghall-Majjali" by A.T. Hessler, Chief Agricultural Advisory Officer, 1957, Malta.

41. R.G. Bonnici Enriquez in lecture "The Dairy Industry in the Islands of Malta and Gozo", Malta, Dept. of Agriculture, 1957, unpub.

42. v. Appendix 1 C and 1 D for details of the present trading position.

43. Both Unions were first officially registered in 1948 but those registrations lapsed. The Ghaqda Nazzjonali tal-Bdiewa (1976 members in 1956) was re-registered in 1956 with only 494 members (Dept. of Labour and Social Welfare).

44. Information on the Co-Operative Movement was kindly provided by Mr. Farrugia.

45. Information on Unions, Co-operatives and the Malta Milk Company (K.M.M.) as at Easter, 1958.

46. That is excluding the Farmers' Central Co-operative.

47. The Summaries were compiled by Mr. H. Bowen-Jones and Mr. J.C. Dewdney of the Department of Geography, Durham Colleges, from the field material amassed by Mr. P.K. Mitchell and the writer.

48. As the information on which these Studies are based was given in confidence identities have been purposely obscured.

49. i.e. Tmien, Sighan and Kejliet : v. Appendix 3.

7: Busuttil I, Y-4, 5 (no date) 1894
EZ6 Malta EZ6

from the gala coach of the dignitaries of the Island to the peasant's cart.

Very many inquiries have been made into the origin of the blessing of quadrupeds on this festival, none of which, however, has proved satisfactory.

That St. Anthony has been long recognized as the patron and protector of the lower animals, and particularly of pigs, is a well established fact.

Fuller, in his "Worthies." says: "St. Anthony is universally known as the patron of hogs, having in all pictures a pig for his attendant, though for what reason is unknown, except because being a hermit, and having a cell or hole digged in the earth, and feeding principally on roots, he and the hogs were both alike in their diet and lodgings."

When St. Anthony was living in the

7: Busuttil I, Y-4, 5 (no date) 1894
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In France one thus imposed upon, on the 1st of April, is called "un poisson d'Avril," in England such a person is called an "April fool," in Italy "un pesce d'Aprile" and in Scotland a "Gowk."

It is curious that the Hindoos practice precisely similar tricks on the 31st. of March, when they hold what is called the "Huli Festival."

During the "Huli festival" when mirth and festivity reign among the Hindoos of every class, one subject of diversion is to send people on errands and expeditions that are to end in disappointment and raise a laugh at the expense of the person sent.

The "Huli" is always in March and the last day is the general holiday.

Colonel Pearce in his "Asiatic Researches" proves this to have been a cus-

7: Busuttil I, Y-4, 5 (no date) 1894
EZ6 Malta EZ6

114 tom, from immemorial time, among the
171 Hindoos. The least inquiry, however, into
522 the ancient customs of Persia, or the
527 minutest acquaintance with the general astronomical mythology of Asia, would have told Colonel Pearce that the boundless hilarity and jocund sports, prevalent during the "Huli Festival" in India, have their origin in the ancient practice of celebrating with festival rites the period of the vernal equinox, or the day when the New Year of Persia anciently began (*)

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527 ***ASCENSION DAY***
Lapsi

The Maltese celebrate Ascension day by parties and picnics on the water.

(*) Maurice in his "Indian Antiquities."

7: Busuttil I, Y-4, 5 (no date) 1894
EZ6 Malta EZ6

Saint, instead of the old period of *Beil* time which was the beginning of May? —I do not believe that a satisfactory explanation of these circumstances has yet been given by any of the antiquaries. It was perhaps to transfer the practice or custom of lighting these fires from a Pagan to a Christian object.

The Nativity of St. John the Baptist was a great and solemn festival of the Church, like those of the other great festivals of Martyrs, the eve or vigil of it was, in the early ages, commemorated with appropriated ceremonies. The public devotions were kept up all night in the churches, of which the Saint was the patron, and the solemnities of the next day were ushered in amongst types and figures appropriate to the occasion. Amongst these was probably introduced a large and

7: Busuttil I, Y-4, 5 (no date) 1894
EZ6 Malta EZ6

Dr. Milner is of opinion that the fires lighted up all over the continent, on the eve of the 24th. of June, are not intended as the idolatrous worship of the sun or *Baal*, the Philistine God of fire, but in honour of Christ's precursor, as alluding to his character of bearing witness to the light (John i. 7) and of his being himself a bright and shining light (John V, 35).

In conclusion, it would appear as certain, that the fires of St. John's eve were intended to typify the Saint by an exhibition of light.

Formerly the feast of St. John (24th. of June) was very popular in Malta. It ranked with that of SS. Peter and Paul, celebrated at Notabile on the 29th of the same month.

The number of people that flocked to Valletta from all parts of the Island,

9: Luke G-5 (ca. 1920-ca. 1960) 1960
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[p.5]

Preface to the Second Edition

SO MUCH HAS HAPPENED IN MALTA SINCE THIS BOOK WAS LAST reprinted that it has seemed desirable to add a new chapter tracing the momentous developments in the Island since the end of the war. This addition apart, I have revised the book throughout in the light of new knowledge now available on subjects dealt with in the earlier parts. I have added a twentieth-century author, D. H. Lawrence, to the writers whose views on Malta are presented in Chapter XIV. A number of admirable photographs newly taken for the Government Tourist Board by Miss Ann Bolt, A.I.B.P., replace, by the kindness of Mr Philip Barker-Benfield, Chairman of the Board, certain illustrations become obsolescent.

I have fortunately been able to keep my experience of Malta up to date by almost annual visits in the last decade, including two as the guest of Sir Gerald and Lady Creasy, three more prolonged visits to Major-General Sir Robert and Lady Laycock, and a more recent one to Admiral Sir Guy and Lady Grantham, to all of whom I am greatly indebted for their sustained hospitality, as to Captain and Mrs Olof Gollcher on earlier occasions.

In renewing my thanks to those mentioned in the earlier preface, I must also record my gratitude to the late Lieutenant-Governor, Mr Trafford Smith, C.M.G.; Colonel Victor Vella, C.V.O.; Dr the Hon. Lewis Galea, C.B.E.; Dr V. A. Depasquale (the Librarian) and Mr Joseph Galea of the Royal Malta Library, for information on several points. Mr Charles Zammit, now Director of Antiquities, has been most helpful with illustrations of the prehistoric period. I thank Sir Hannibal Scicluna and the Gabinetto Fotografico Nazionale of the Italian Ministry of Public Instruction for the photograph of Caravaggio's *Beheading of S. John the Baptist* after restoration in Italy, the *Times of Malta* for the view of Mdina, Mr Wilfred Flores for taking for me the colour photograph which forms the frontispiece, and, for two photographs, the Result Studio of Sliema.

H.C.L.

9: Luke G-5 (ca. 1920-ca. 1960) 1960
EZ6 Malta EZ6

CHAPTER I

Introductory

MY EIGHT CROWDED YEARS OF LIVING AND WORKING IN Malta—preceded by two brief halts as a temporary Naval Officer towards the end of the First World War—taught me a little about Maltese affairs and conditions, perhaps as much as a mere sojourner may expect to absorb in less than a decade. And the more I discovered about Malta and the Maltese, the better I grew to like both. What I then acquired, and retain, was an affection neither uncritical nor undiscriminating but based on the beginnings of understanding, I hope, of a small but complex community. I should be glad to think that something of what I have learned about and feel for those two remarkable little islands has found expression in the following pages.

This book is not a guide, it is not a handbook, it is not a history, it is not a collection of personal reminiscences, even if a personal note may be faintly audible here and there. It is above all not a commentary on Malta's politics, although I had my fill and more of these during my eight years. Twice during this period was Self-Government suspended and twice did I assume departmental charge under the Governor of the civil administration (having been concerned during Self-Government only with the Imperial side of the diarchy), a type of experience common enough among politicians returning from the wilderness to office but rare to the verge of uniqueness among Civil Servants. And there were other experiences scarcely less unusual.

Nor were Maltese politics of mere local, parish-pump range. Even in Homeric times Malta was looked upon as "the navel of the inland sea"; and the winds that blow upon it from every quarter, the cross-currents that buffet its rocky

9: Luke G-5 (ca. 1920-ca. 1960) 1960
EZ6 Malta EZ6

121 shores, are composed of more than the physical elements of
66 air and water. The implications and repercussions of Maltese politics when I had experience of them were unfortunately often international and sometimes politico-ecclesiastical (these can be very prickly); not infrequently they impinged upon the most fundamental constitutional principles. For the relations between Church and State have given rise to controversies that have troubled Christendom since the Dark Ages; other Maltese problems were equally deeply rooted in a long and complicated past. Their implications and repercussions bore, in fact, a striking resemblance in certain directions to those of politics in the Palestine of the Mandate, where I had previously served. Happily the Maltese scene lacked one factor—the ambiguity of the established policy—which in Palestine made an administrator's life a hell on earth; in other respects politics in Malta could be almost as corrosive, almost as pervasive. But they will not pervade this book, nor even enter it except occasionally for the sole purpose of *constatation*, that untranslatable word.

121 These, then, are the things which this book is not. I find it less easy to state what it is. I have called it an "Account and an Appreciation" because I can think of no better definition of what I have tried to do in the chapters that follow. A reviewer of one of my previous books remarked that Malta was the only part of the Mediterranean about which I had not written. At least I have now repaired that omission, if omission it may claim to have been.

• 114 The book was begun in Malta, continued in Barbados,
[128] finished, of all places, in the Straits of Magellan, the eye-witness account of whose discovery, written by Antonio Pigafetta, a Knight of the Order of S. John, was dedicated to Philippe Villiers de L'Isle Adam, the first Grand Master of the Order to reign in Malta. I left Malta in 1938, whisked from the land-locked Mediterranean, where from choice I had served during most of my career, to the greatest of the oceans, the Pacific, at the other side of the globe. Since my

9: Luke G-5 (ca. 1920-ca. 1960) 1960
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return to the Old World I have fortunately been able to revisit Malta a good many times, but in the interval it had suffered the greatest physical damage in its history, had undergone more external change than at any time since the Knights of S. John converted the "barren rock" of their first impressions into one of the most thickly built-up geographical units in the world. 114

In the circumstances I may well have fallen into errors of commission and omission, for which, if so, I ask the reader's indulgence.

"Even S. Paul," say the Maltese encouragingly—for S. Paul is Malta's most deeply venerated saint—"even S. Paul suffered shipwreck in Malta."

9: Luke G-5 (ca. 1920-ca. 1960) 1960
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after the next meeting of Parliament; and to declare the isle of Malta to be part of Europe"—

> that the said Island of Malta and dependencies thereof shall be deemed, taken and construed to be part of Europe for all purposes, and as to all matters and things whatever; any law or laws, usage or custom, or act or acts, to the contrary thereof notwithstanding.

But this enactment, although it satisfied the administrators, did not wholly silence the men of science, who produced, in addition to Europe and Africa, yet a third continental claimant to the geographical ownership of the Maltese Islands. In the middle of the nineteenth century a Maltese architect and engineer named Grognet de Vassé, best known as the designer of the great Parish Church of Mosta, propounded the theory that the submerged continent of Atlantis lay between Cyrenaica in the east and Tunis in the west, almost filling the indentations in the coast of North Africa which the Romans called Syrtes Major and Syrtes Minor and we know to-day as the Gulfs of Sidra and Gabes. Of this continent, said Grognet, the Maltese archipelago formed the north-western corner; and he published a learned treatise in support of his theory, which he based on ample references to mythology, etymology and classical geography.

It is an ingenious piece of imaginative reasoning whereby the author places the Elysian Fields and the lower world of the ancients in Atlantis, the mouths of the rivers Acheron and Phlegethon in that part of Atlantis which is Malta—namely, in the Grand Harbour and the harbour of Marsa Mxett—and an outlet of the river Styx in one of the springs of the gardens of the Villa Frere, for many years the beautiful residence and garden in Pietà of the distinguished scholar, man of letters, diplomatist and friend of Sir Walter Scott, the Right Honourable John Hookham Frere.

Nevertheless the legislators of 1801 were rightly inspired, for in climate and vegetation no less than in the works of

9: Luke G-5 (ca. 1920-ca. 1960) 1960
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533 665 are populous enough to run to two bands these will as likely as not be identified with the opposing political parties.

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357 No book about Malta, no chapter making mention of the country people, would be complete without reference to a class of Maltese largely drawn from the country-folk. In these days, when domestic service is shunned by potential employees and thought of more as a myth than as something that once existed by would-be employers, it is my pleasant duty to record that Maltese servants can be among the best in the world. Such, at all events, has been my experience and that of many of my friends in Malta. Where employer and employee have been able to establish a relationship of mutual esteem and respect (and few people are more ready to respond in this way than the Maltese domestic), the employer in Malta may confidently count not only upon receiving from members of the household staff faithful, efficient and loyal service but upon retaining, if he or she is only a sojourner in the island, their affectionate regard long after he or she has left its shores.

It is, however, regrettable but necessary to add that since these words were first written domestic servants are tending to become as rare in Malta as they are elsewhere.

● 114 357 Shortly after the First World War a gentleman named Eric Shepherd came to Malta as Professor of English Literature at the University, and remained there for three years. On his experiences during those three years Mr Shepherd subsequently wrote a book called *Malta and Me*,[1] which abounds in puckish humour and flashes of insight and is often extremely entertaining.

But partly because of its puckishness, partly because the author laid what might appear to some to be excessive emphasis on such drawbacks to life as may exist in Malta

[1] Selwyn and Blount, 1926.

9: Luke G-5 (ca. 1920-ca. 1960) 1960
EZ6 Malta EZ6

(and where do they not exist?), his book gave a certain amount of offence in the more sensitive quarters of the island. None the less, it includes a chapter which should have atoned for any "causes of stumbling" created in those quarters. The chapter is entitled "Dolores" and concerns the Shepherds' Maltese maid-of-all-work and their baby's nurse. "Dolores" is not only a telling tribute to some of the salient virtues of the Maltese character; it is one of the most sensitive and moving descriptions of the personal devotion of a servant to her employers and her charge that I have had the good fortune to read.

4

A word has been said earlier in this chapter as to the grandeur of the cliff scenery of Malta. Inland, on the other hand, the countryside can scarcely be called either grand or impressive, and during the dry summer months there is little colour to set against the brown aridity of the fields other than the sage of the olive, the carob and the fig-trees, and the pinks and whites of the oleanders beside the roads. But after the autumn rains have begun to refresh the parched earth the land rapidly assumes a mantle of young green, and the wild flowers appear shyly above ground, beginning with two lovely miniature blooms—the brilliantly blue *Iris minuta* and the even more ethereal, strongly scented "*satarina*" (*N. serotinus*). This, the tiniest of the narcissi, looks as if it had been called into being by a touch of the fairy's wand in Walt Disney's *Fantasia*.

Later, in March and April, Malta and Gozo alike seem to glow with the crimson, deepening into purple, of the *sulla*, the clover or sainfoin with which thousands of acres are sown for fodder. Among the most striking blends of colour are those produced by many varieties of Bougainvillæa (which flourishes exceedingly in Malta) and the purple-and-cream flowers of the wild caper, against the background of the rich gold of the fortifications.

9: Luke G-5 (ca. 1920-ca. 1960) 1960
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Classical authors as well as travellers of the Renaissance and later ages have praised Malta's fertility, the quality of its corn, its fruit, its linen and its cotton,[1] the sweet scent of its roses,[2] the delicate aroma of the wild thyme that flavours its honey. Cicero, in fact, called Malta a land of honey and roses, and it was being described in similar terms nearly two thousand years later. "The fruits are of exquisite flavour," wrote Dr Meryon, Lady Hester Stanhope's sorely tried physician, companion and biographer. "Flowers are very fine, and I could not help fancying the roses more fragrant than in my own country. Malta honey is highly esteemed." Elsewhere the Doctor remarks that "no people are more attached to their country than the Maltese to their barren rock"; and it is natural enough that the Maltese of to-day should like to refer to their island as "the flower of the world."

This phrase, if held to refer solely to scenery and vegetation, might appear to some to verge on the excessive. If it be taken to apply to the many-sidelines of Malta's interest and amenities it does not lack justification.

[1] During the era of sailing-ships Malta, and especially the casal of Zebbug, produced a heavy cotton sail-cloth which earned a wide reputation and was exported all over Europe.

[2] The name Attard, the charming old casal half-way between Hamrun and Mdina, means "the village of roses."

Arms of G. M. Manoel de Vilhena

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GOZO

CHAPTER XIX

Gozo

All round the cave-mouth there flourished a luxuriant copse of alder trees and black poplars and rich-scented cypresses: therein roosted birds of long wing, owls and hawks and chattering hook-billed crows—birds of the sea whose livelihood was from the waters. A young strong vine loaded with bunches of grapes wreathed the opening of the cave. Four springs quite near together jetted out translucent water in separate rills ingeniously contrived, each to water its own garden-plot. The soft lawns were starred with parsley and violets. Even an immortal coming upon the nook would pause before its beauty and feel his heart made glad.

IT IS POSSIBLE—INDEED, PROBABLE—THAT THE MODERN visitor would fail to recognize from these words, taken from T. E. Lawrence's translation of the *Odyssey*, the cave of Calypso as it appears to-day, surmounting and overlooking the sandy bay of Ramla on the north coast of Gozo. Still less easily, perhaps, would he recognize it from the passage in *Télémaque* in which Fénelon describes the grotto in language even more exuberant. As Malta is S. Paul's island, so is Gozo Calypso's; and it may be that nothing but an earthly paradise was deemed meet for the entertainment by an immortal of so critical a guest as Odysseus.

True, there are corners of Gozo that fall not far short of the picture imagined by the great Archbishop of Cambrai: I have in mind especially the little Chapel of Lunzjata (the Annunziata) in a grove of ancient almond- and carob-trees between Victoria and the village of Kerchem, facing the munificent Perellos's graceful fountain at the head of the rich little *wied* (valley) that runs down to Xlendi. Whether this glade is seen in the spring, when it is a mass of blossom